

W5YI

National Volunteer Examiner Coordinator

REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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...and much, much more!**

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AVM DEVICES MOVE INTO 902 MHz BAND

Screams of horror were heard recently emanating among the ham ranks ...a large California coordinating group has stopped assigning 900-MHz repeater frequencies. The FCC had turned another ham band over to commercial interests! The 220 cancer had spread to 900 MHz. Not so.

Worldwide ...and in the United States, the 33 cm band (902-928 MHz) is shared with many other radio services. It is without a doubt the most misunderstood ham spectrum we have ...and understandably so. Sandwiched in between cellular phone band segments, you almost have to be a Philadelphia lawyer to determine "Who's on first?" In a sentence, just about everybody. Worldwide it is used for all sorts of things. You name it and it probably can be allocated spectrum between 902 and 928 MHz.

Let's try and sort out 33 cm. Most of the answers can be found in Final Acts of the 1979 Administrative Radio Conference with its mammoth International Table of Allocations ...and hundreds of "footnotes." A delegation takes a footnote when it deviates from the basic allocation. They seem to be the most prevalent at the VHF and higher frequency range because of radio wave propagation characteristics. *The Table giveth ...and the footnote taketh away.* Every ham band above two meters is shared. (See Part 2.106)

Looking at the international table of allocations, one finds that 902-928 is clearly a "junk band." In most of the world, (ITU Regions 1 and 3) Broadcasting,

Mobile and the Fixed (point-to-point) service is primary; Radiolocation is secondary. This means that most moving or immovable stations can legally be allocated spectrum ...and there isn't much else. Amateur radio isn't even mentioned.

In Australia, Radiolocation ...a service to determine station position by means of the propagation properties of radio waves, is primary. The USSR (and certain other eastern European nations) use 33-cm spectrum for Aeronautical Radionavigation ...aviation guidance and obstruction warning.

In our ITU Region 2 (North and South America) 902-928 is allocated to the Fixed Service (primary) with Amateur, Mobile (except aeronautical mobile) and Radiolocation being secondary. The 33-cm ham band exists hardly anywhere except in the United States. To protect sensitive military operations, there are even sections of Texas, Colorado, New Mexico and Wyoming where the band isn't available to U.S. amateurs!

Furthermore, international footnote No. 707 states "In Region 2, the 902-928 (center frequency 915 MHz) is designated for industrial, scientific and medical (ISM) applications. Many microwave ovens purr away on 33 cm.

The United States Table is broken down into two sections; Government (controlled by the NTIA, National Telecommunications and Information Administration) and non-government use; administered by the FCC. The government table shows Radio-

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location as the primary user ...with military applications taking precedence. (*Government footnote No. G-59.*)

US footnote No. 218 to the *World Administrative Radio Conference* clearly points out that band segments 902-912 MHz and 918-923 MHz are available in the United States for Automatic Vehicle Monitoring (AVM) Systems subject to not causing harmful interference to the operation of Government radiolocation stations. Now we are getting closer to the heart of the issue.

Further down, *US footnote 275* states "The band 902-928 is allocated on a secondary basis to the amateur service subject to not causing harmful interference to the operations of Government stations authorized in this band or to *Automatic Vehicle Monitoring (AVM) Systems*. Stations in the amateur service must tolerate any interference from the operations of Industrial, Scientific and Medical (ISM) devices, AVM Systems and the operations of Government stations authorized in this band."

That is pretty clear. Actually, we have known about this for a decade ...just like we knew of the possibility of losing amateur access at 220 MHz. Nearly ten years ago ARRL requested that amateurs receive protection from 33-cm AVM systems ...and claimed that the secondary amateur allocation in the international table justifies such an action.

The FCC responded "...it is recognized that the AVM systems are providing important functions that are in the public interest. Consequently, we are proposing that amateur operations not cause harmful interference to AVM systems."

That quote came from the proceeding seeking to implement WARC 1979 ...as does: "The current and future spectrum requirements for the 220-225 MHz band are undefined at the present time. ...we will not implement fixed and/or mobile services pending further rulemaking."

AVM MOVES INTO THE 902-928 MHZ BAND

Teletrac is an AVM system that simply is operating on spectrum it has already been allocated. It has more right to the band than the amateur. The *Teletrac* unit is quite small ...manufactured by well-financed Japanese makers whose aim is to popularize automobile location and vehicle radio-based alarms by high volume consumer marketing.

The ***Southern California Repeater and Remote Base Association*** (P. O. Box 5967, Pasadena, California 91107) issued a news release suspending coordination in 33 cm band. **Bill Kelsey/WA6FVC**, SCRRBA chairman said "...effective December 7, 1989, the SCRRBA will suspend all coordination of the 902 - 928 MHz band.

International Teletrac Systems (ITS), a subsidiary of Pacific Telesis Group, will begin operation of a commercial radiolocation service in the greater Los Angeles/Orange County area in 1990. This system will occupy 8 MHz of spectrum (904 - 912 MHz) and is capable of locating more than 3 million vehicle positions in a 24 hour period of time.

The ITS radiolocation system is on the air in Los Angeles on the 33 cm band. Suspension of coordination by SCRRBA is in accord with *CFR Title 47, FCC Rules & Regulations, 97.303 (g) (1)*. The Amateur Radio Service (ARS) is secondary to automatic vehicle monitoring systems (radiolocation) and shall not cause them harmful interference.

The SCRRBA Technical Committee will meet with ITS to evaluate Southern California ARS use of the band. The Technical Committee will then determine what options are available to the ARS community in Southern California. Some of the options to be considered are as follows:

- Continue coordination with the current band plan
- Make minor adjustments to the current band plan
- Sponsor a band planning meeting for a new band plan

This news release should serve to alert other Coordination Councils and/or Coordinators that similar issues will soon face them. A published schedule of commercial radiolocation service by ITS includes the following 38 metropolitan areas:

By 1991 - Atlanta, Baltimore, Boston, Chicago, Dallas, Detroit, Houston, Miami, New York City, Philadelphia, Pittsburgh, San Diego, San Francisco, and Washington D.C.

By 1992 - Buffalo, Cincinnati, Cleveland, Columbus, Denver, Ft. Lauderdale, Hartford, Indianapolis, Kansas City, Memphis, Milwaukee, Minneapolis, Newark, New Orleans, Phoenix, Portland, Rochester, Sacramento, Salt Lake City, San Antonio, San Jose, Seattle, St. Louis, and Tampa/St. Petersburg. SCRRBA will make additional announcements as

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events develop."

With the regulatory uncertainty of 902-928 MHz, it is really little wonder why there is no commercially available ham equipment for the band. There is no lower spectrum status than being secondary to ISM devices.

Again, It is important all amateurs recognize that the Amateur Service is not the primary designated user of any U.S. ham band above 2 meters ...that is except 222-225 MHz. The day may yet come when the FCC order making those three megahertz "amateur exclusive" will be regarded as a very positive action for ham radio.

\$1,200 REPEATER JAMMING FINE UPHELD

The FCC Commissioners have ruled the \$1,200 fine against General class licensee, **David B. Hodges, N3DTH**, of Baltimore, Maryland, was appropriate. The August 2, 1988, Private Radio Bureau penalty had been appealed to the full Commission.

Beginning in 1985, the FCC received a number of jamming complaints to the *Baltimore Radio Amateur Television Society* (BRATS) repeater. On May 4, 1987, FCC engineers observed interference consisting of touch-tone sounds and unmodulated carriers on the repeater's input frequency.

The unidentified tones were interspersed among legal transmissions from Hodges amateur station. The engineers used the "signal signature" method to establish that the interfering transmissions were indeed from the same transmitter as those identified by Hodges' call sign.

This procedure involves comparing the profile of an unidentified signal with the profile of signals emitted by a known transmitter. The FCC also tested Hodge's transmitter which he brought to the Commission's Baltimore office. Engineers again confirmed it was the source of the jamming signal.

Hodges said he did not remember making the interfering transmissions but did say he "...has on occasion made such transmissions to cause interference when provoked by others." He said he has held a license since 1970 and has never been cited for any violation. Hodges stated his actions "...were simply an overreaction provoked by harrassment from others." The FCC ruled "...harrassment does not justify retaliating with willful or malicious interference."

Additionally, Hodges claims others have also jammed the BRATS repeater and that "...his violations are moderated by public service contributions. He said the fine is a financial hardship and the expense of paying his lawyer should also be considered as a mitigating factor.

The FCC agreed that while some violators may go unpunished, that "...does not mean that we cannot punish those we do find. Any expense Hodges incurred to retain counsel resulted from his own choice."

The Commissioners were unified in their agreement with the \$1,200 penalty, but said they would allow Hodges to pay the forfeiture in twelve monthly installments of \$100. First installment is due Jan. 19.

FCC DISCUSSION ABOUT HODGES'
at the 12/12 /89 Commissioners' meeting:

Commissioner James Quello: "I support this action. Normally the amateur service is very proud of its discipline, its self-regulation, but here's someone who in anger or revenge decided to deliberately create interference. The only possible complaint I have is why there has been such a delay. The complaint was registered in 1985. We're now taking action in almost 1990. The engineers investigated it in 1987. That wasn't on your shift, Mr. Chairman, but we should be taking action earlier."

Commissioner Sherrie Marshall: "Commissioner Quello raised a good point. I didn't realize we are so late in coming around to act on this. The amateur community usually does a very good job of self-policing. But we should be ready to step in when their cooperation isn't able to deter these improper practices. I've also heard complaints that there are other amateurs around the country who are disrupting operations, and that it's difficult to get them back in line. What are you doing to address these questions?"

Private Radio Bureau Deputy Chief Beverly Baker:
"There are a couple of cases active at the moment. Bob McNamara of the Special Services Division can comment specifically on what we have pending at the moment."

Robert McNamara: "The amateur community is very

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responsive, but right now we have a few isolated cases of individuals. We have a case in the Virgin Islands, we've contacted quite a few amateurs, we're trying to resolve that first within the amateur community itself. There is not a great deal of cases but as the Hodges case shows, when there are we do try to respond to them as promptly as we can. Some of the other situations we have are occasional cases of exam cheating. These are under investigation. The amateur community itself administers the Volunteer Examiner program and does very good work, very efficient."

Commissioner Barrett: "With the time delay, it seems to me that we have rendered this rather ineffective enforcement. You take into account his legal fees and only charge him a hundred dollars a month for twelve months. That doesn't send the right message to him given his intent. He was aware of the outcome of his actions, and we take into consideration his legal fees. A hundred bucks a month does not send the right message."

Baker: "Certainly if his behavior does not clear up considerably, then we can take additional action against him."

Barrett: "Well, if he was not aware of the outcome of those actions I could understand. But what disturbs me is that one had to be very much aware of what the actions would lead to."

Baker: "We also have had a limit on a \$2,000 limit on fines we can impose for each instance of violation."

Barrett: "I'm not raising an issue about the overall fine. I'm raising the issue that we're taking into consideration a hundred dollars a month based on his legal expenses. Well, he should have known by his actions he was going to have legal expenses."
(General laughter.)

Despite the concerns raised by Commissioners Quello, Marshall and Barrett, no changes were made to the penalty. The item carried unanimously.

Noting that Commissioner Marshall asked about other ham enforcement cases, we asked FCC staff if there is any investigation pending into the heavy,

malicious jamming of emergency VHF and HF communications during the California earthquake. It's been widely reported that the matter is being brought to the attention of the White House.

PRB Deputy Chief Baker said her staff was not aware of any such investigations.

Live on 20 meters!

THE INVASION OF PANAMA BY THE U.S.

Rafael M. Estevez, WA4ZZG, heads up the Spanish language Miami-based SIRA, Sociedad Internacional de Radio Aficionados. Estevez, was awakened at 1:04 a.m. by a phone call from Panama early Wednesday, Dec. 20. The caller asked Rafael to quickly come up on 20 meters. WB4ESB, the SIRA Net Control Station, was activated on its regular frequency of 14.153 MHz. Contact was established with SIRA correspondent **Jose. M. Alvarez/TG9MP** and **Roberto/HP1CQL**.

Two unidentified Panamanian stations (whose voices were well known) started giving an account of what they were seeing and hearing. First they reported the chatter of heavy artillery, mortars, bombing, machine gun fire ...plus the the buzzing of planes and helicopters.

Panama was being attacked by the United States and it was being reported live on 20 meters! At first, afraid of government reprisals, the Panamanian ham stations did not give their call signs because Noriega was still in power.

Estevez was given a blow-by-blow account of the invasion while it was happening - just fifteen minutes after the initial assault. It was the first U.S. news of the attack. The artillery and machine gun fire was heard until about 3:00 a.m. Panama broadcast radio began appealing for nurses, doctors, and blood plasma. There were now more than two hundred casualties ...mostly Panamanian civilians. Over one hundred people were dead.

Rafael was told Paitilla airport (where Noriega kept his plane) and another small airfield was bombarded by the U.S. Air Force to prevent General Noriega from fleeing the country. One of the Panamanian ham stations reported that Gen. Noriega

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was now holed up on Flamingo Island in a small bunker Noriega created himself to prepare for just this type of eventuality.

I told Rafael to call the U.S. State Department to report the whereabouts of Noriega. He said he would. I then telephoned Roy Neal/K6DUE of NBC News who contacted the NBC News desk in New York. Shortly thereafter NBC broadcast the account. The NBC network also made arrangements to go to Rafael's ham shack in Miami.

They had plenty of company. Miami TV Channel 4 had already arrived at the SIRA NCS at 2:30 a.m., ABC appeared at 6 a.m. At 9 o'clock, Channels 51 (Telemundo Network) and Channel 23 (Univision) with 235 affiliated stations just in the United States transmitted live. Some of the reporters wanted to use amateur radio for further Panama invasion news gathering, but Rafael would not permit it.

§Part 97.113(c) allows news gathering by ham radio only if four conditions are met:

- (a.) the news involves the immediate safety of life and protection of property,
- (b.) the news is directly related to the event,
- (c.) the news cannot be transmitted by any other means and;
- (d.) ...other means of news gathering could not be reasonably provided before or at the time of the event.

Had there been a news blackout during the operation ...such as in the case of the Grenada invasion of a few years ago, amateur radio could legally have been used as the news gathering pipeline ...and most certainly would have been.

The *§Part 97.113* Rules concerning news gathering for broadcasting purposes were not in place when Grenada was invaded and news directors are well aware of these rules! They pressed hard for rule changes after a medical student who also was a ham operator reported the Grenada invasion to the world from underneath a dorm table during a news blackout!

Worldwide communications among private citizens make accounts of large covert military operations readily available. Little escapes the eyes of the ham

operator.

One of the broadcasters asked Rafael to accompany him to Costa Rica with a ham radio ...but they did not go. Broadcasters wanted to be able to monitor the VHF/UHF amateur frequencies to get first hand combat information from Panamanian civilians.

The SIRA network operated an average of 19 hours a day. Messages were relayed by YV5ID, YV4WR, TI2LFP, TG9MP, TG9NT and others during times of poor direct propagation. All kinds of traffic were handled. Stations from Central and South America, the Caribbean, Spain, Italy, Canada and England checked in. At press time, more than 2,300 health and welfare messages were handled. On Saturday and Sunday another SIRA network operated on 15 meters (21.300 MHz) with HP1CNX and HP1CMI.

On Friday, Dec. 21, HP1MP reported by ham radio how the brigades armed by Noriega assaulted, blew up and robbed one of the branches of the Banco General with the help of a tractor.

Haitian tourists trapped by the crossfire at the Marriott hotel were put in contact by SIRA with HH2BR in Port Au Prince, Haiti. The conversation was in English, Spanish and finally in Creole ...the French dialect spoken on that island.

With food reserves dwindling, the HP's are hoarding their home stocks ...and forming ham radio coordinated neighborhood self-defense groups. Emily/HP1PE said "...we cannot sleep, and we are nervous. We can't eat enough because we will exhaust our supplies."

Some amateurs in Panama formed a vigilante system operating from the top of their condominiums and taller buildings. With the help of local repeaters on 146.16/76 and 147.87/27 and simplex frequencies, they exchanged information about the infamous Dignity Battalions created by Noriega and his forces. These battalions are composed of freed prison inmates and criminals with nothing to lose.

Several Counsuls and Ambassadors reported to their countries by ham radio and detailed the chaos in Panama. One amateur reported that the Cuban

and Nicaraguan Embassies are heavily surrounded by military and civilian personnel. He is almost sure that Noriega is hidden in one of them, after eluding the CIA and the military. They base their suspicions on the VHF/UHF communications they are monitoring.

In Miami, SIRA is helping to organize the collection of canned goods and clothing to be sent to Panama in cooperation with a shipping company that has agreed to waive cargo fees.

MICROSAT LAUNCH NOW SET FOR JAN. 11

All seven spacecraft: the Spot-2, four Microsats, and two UOSATs have been mated to the Ariane launch vehicle. Trickle charge is occurring on all six of the small spacecraft. Volunteers at the launch site in Kourou, French Guyana, monitored the battery voltages and charge currents on the spacecraft through the holiday weekend. SPOT-2, the primary mission of the European Space Agency launch, has been fueled with Hydrazine. SPOT-2 is an earth resources satellite with a high resolution camera.

The latest liftoff date and time is now January 11 at 0135 UTC ...with a 10 min. launch window! Remember that's the evening of the 10th in North America - 8:35 EST. The liftoff will be aired in real time (live) on ham repeaters around the hemisphere.

In order to provide radio amateurs around the world with up-to-the-minute information about the launch, AMSAT is conducting a launch day information network known as ALINS. **AMSAT Launch Information Network Service** is scheduled to begin at 0100 UTC, Jan. 11. The space shot will mark the first multiple OSCAR satellite mission flown by the Radio Amateur Satellite Corp. Six ham satellites will be sprayed into space at once!

Local repeaters may join the ALINS network by placing a long distance telephone call into a teleconference bridge that will provide the audio to be fed to the local repeater. Groups can reserve a port on the teleconference bridge by contacting ALINS' **Courtney Duncan/N5BF** (4522 Ocean View, La Canada, CA 91011) Tel: 818-957-8455. Call between the hours of 7:00 and 10:00 p.m. PST.

The launch network will last about an hour. Again, remember 0100 UTC January 11 is actually Wednesday evening of the 10th!

The Microsats are presently 'alive' with their computers running software and monitoring their status and will be 'live' when they leave the launcher. The UOSATs are 'dead', that is no power is being applied to the spacecraft. The separation switch applies power from the batteries to the spacecraft upon separation. AMSAT-NA has flown 'live' spacecraft since Phase III-A and UOSAT has always flown 'dead' spacecraft. It is just a difference in approach.

Each of the six amateur satellites has its own financial, manpower and technical support base. The basic Microsat design, however, is innovative and put together by AMSAT North America. In tail wagging fashion, commercial aerospace firms are interested in the concept for (relatively low priced) business applications.

SUMMARY OF THE SIX HAM SATELLITES:

Microsat "A": is known as PACSAT and is sponsored by AMSAT-NA with a lot of help from the ARRL and TAPR. It is a digital store-and-forward packet radio satellite. Mode J configuration: Uplink on 2 meters, down on 70 cm.

Microsat "B": is known as DOVE, an acronym for *Digital Orbiting Voice Encoder*. Sponsored by BRAMSAT, AMSAT Brazil, DOVE will be used for amateur radio and educational applications. It will put out garden-variety packet on 2M unlike the other satellites which require exotic modems to demodulate. Downlink will appear at 145.825 MHz with synthesized speech output which can be received on pocket scanners and hand held transceivers.

Microsat "C": also known as WEBERSAT, was developed by students at the *Center for Aerospace Sciences and Technology* (CAST) at Weber State College in Ogden, Utah. Among its experiments is a special CCD camera which will snap images of earth from space and store them in the on-board computer memory for later downloading as packets to ground based stations. Special software will compile the packets for video PC image display.

Microsat "D": sponsored by AMSAT Argentina is also known as LUSAT. It is basically a clone of the PACSAT, Microsat "A" and has beacon that will transmit Morse code telemetry in the 70 cm (450 MHz) ham band.

UOSAT "D": is also a digital store-and-forward

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bird ...but at a much higher data rate, 9600 baud. (UoSAT's A,B, and C have already been launched. "D" is a continuation of the program from the UK's, University of Surrey.) **UOSAT "E"**: has a number of experiments in it - including an on-board camera.

[Bob McGwier/N4HY, Doug Loughmiller/KO5I, AMSAT]

SAREX - 1990

(By Roy Neal/K6DUE)

Space Shuttle Columbia is scheduled for a ten day mission (STS-35), to be launched in the evening of April 26, 1990. **Dr. Ron Parise/WA4SIR**, a Payload Specialist, has been cleared by NASA to operate voice and packet during this flight. By coincidence, the commencement of WA4SIR's operation coincides with the 1990 Dayton Hamvention and consideration will be given to linking these two major ham radio events.

This is followed by STS-37. Space Shuttle Atlantis is scheduled for a five day mission to be launched on June 4, 1990. Marine Corps **Lt. Col. Ken Cameron/KB5AWP**, the pilot, has been authorized to operate voice, packet, slow-scan amateur television and fast-scan amateur television. Ironically, this flight too coincides with another major amateur radio gathering. The 1990 ARRL National Convention takes place in Kansas City Missouri June 8-9, overlapping the final two days of the STS-37 flight. Both flights will use the amateur 2 meter band.

The equipment is now undergoing final testing at the Johnson Space Center, in Houston Texas. Packet operations will be continuous for periods of about twelve hours daily. Most amateurs world wide should be able to send messages through the shuttle using this mode. Voice and television operations will be dependent on the astronaut's work schedule but early flight plans indicate that they should have an hour or more available daily.

The orbital track of both missions will be at an inclination of approximately 28.5 degrees. This southerly orbit will put most of the United States out of range during the times when the astronauts are visible, so AMSAT-NA plans to establish ground station networks over strategic locations to relay communications. Stations in Africa, Australia, Mexico and South America are now being contacted by AMSAT. Japan is also under consideration.

Each general area will be coordinated by a control station, who will in turn be in direct contact with the operations command station, W5RRR, at the John-

son Space Center in Houston, Texas. Amateur satellites, commercial satellite channels, shortwave links and other telecommunications facilities will be used to provide this real-time hookup. Communications will be broadcast by a specifically designated station and repeated to WA3NAN at the Goddard Spaceflight Center near Washington D.C. and W6VIO at the Jet Propulsion Laboratory in Pasadena, California.

These locations, and W1AW, at ARRL Headquarters in Newington, Connecticut, will be coordinating stations. They will broadcast on most amateur frequencies including 75, 40, 20, 15 and 10 meter SSB, 24 hours a day, during the missions. Using this as their source, numerous VHF and UHF repeaters will be able to re-transmit their material for local dissemination.

The network will carry official NASA Mission Commentary, frequent bulletins to advise the amateur community of planned transmissions by the astronauts, and all two-way voice and TV transmissions with the spacecraft. Mission planning information also will be fed by computer from the Johnson Space Center to coordinating stations to insure the accuracy of their bulletins.

The digital network will also provide advice on where and when to tune in the spacecraft. [This should help avoid a repeat of the situation that occurred with the very first ham in space mission, when schedules were constantly being revised and obtaining accurate information about transmission schedules was quite difficult. - Ed.] W1AW at ARRL Headquarters and W5RRR in the newsroom of the Johnson Space Center will both be used as media showcases.

A prime objective of both missions is school participation. A pre-flight videotape, showing the astronauts explaining their equipment, an orbital tracking map and an informational packet explaining the SAREX program and amateur radio in general, plus a suggested curriculum, prepared by educators for in-school activity will be available. NASA has promised full cooperation using their SpaceLink Computer Network and allied educational facilities. Each astronaut will make at least one transmission on NASA video and audio circuits to show their stations, and a Post-Flight videotape will be made available to all clubs and schools that take part.

In addition, a *Teleconference Radio Net* to feed

most amateur repeater stations in the United States is also planned. The repeaters will permit easy access to schools and the youngsters attending them. With the help of amateur radio clubs and members with hand-held equipment, students will be invited to share directly in the flights. Most will have their questions answered and from some locations, they may even be able to talk directly to the astronauts. This project is co-sponsored by the American Radio Relay League and AMSAT-NA. ARRL is lead organization for information, education and support. AMSAT-NA is lead for technical operations.

The *Johnson Space Center Amateur Radio Club*, as always, is in charge of in-flight equipment and flight planning. The *Motorola Amateur Radio Club* of Schaumburg, Illinois has provided the specially-built transceivers and antenna. Terminal Node Controllers have been supplied by the Heath Company.

In the 1980s the original SAREX flights gave a dramatic public display of amateur radio in space. SAREX-90 presents an even greater opportunity. With packet radio, radio relay, teleconference and video demonstrations, it will show the world of amateur radio at its very best.

73's REVOLVING DOORS KEEP SPINNING

The following press release was recently left in my MCI electronic mailbox by NS1B.

"The Editor-in-Chief of 73 Magazine, **Bryan Hastings NS1B**, announced his departure from 73, effective 15 Dec. NS1B held this position since Jan. 1989, marking a year-long term, the longest in recent history for an E-in-C of this publication. Since Wayne Green Enterprises bought 73 from International Data Group (Framingham, MA) in early 1986, previous Editor-in Chief terms lasted 2 months, 9 months, and 10 months respectively. 73 was without an Editor-in-Chief for 8 months Mar.-Oct. 1987.

NS1B reflected: "I will always appreciate the vast experience I accumulated during my stint with the magazine. There is always opportunity for rapid advancement there. Working on 73 is an excellent first stepping-stone into the world of publishing. I will really miss my staff and the contributing authors and columnists."

If you are a ham or radiocommunications-oriented person interested in breaking into publishing, deals well with the pressures of nearly daily deadlines, is

willing to work long hours, and is a non-smoker, then contact a member of the Publishing Staff, **Wayne Green W2NSD/1**, or **Jim Morrisette K6MR/1**. Feel free also to contact Bryan NS1B at 710 Main St., #14, Keene, NH 03431, (603) 357-9258." [End of quote.]

The press release seemed to be saying that one could anticipate a very short tenure at *Wayne Green Enterprises* and you might want to contact Bryan before considering employment at 73. I decided to phone Bryan.

I have known the last four editors at 73 Magazine; **Perry Donham/KW1O** and **Larry Ledlow/NA5E** were both W5YI VE's. Although not a ham, **Stu Norwood** was Associate Publisher for exactly three years and was in the process of being licensed as an amateur when he was laid off. In the three years that Stu was with 73, he and the staff saw the magazine establish considerable growth and stability.

Stu said Wayne told him that he regarded his position as Associate Publisher as *only a job*. "The magazine growth and the welfare of the staff were of paramount importance to me," Stu said. "I was deeply concerned for the magazine and my position there was far more than a simple publishing job." Bryan Hastings followed Ledlow as Editor-in-Chief.

There is now no Editor-in-Chief at 73 Magazine ...and apparently there will not be one. The next issue of 73 Magazine, I understand, will contain no titles whatsoever. Staff names will be listed only.

Bryan told me he was in the process of settling into some new areas ...and would talk to me later. I asked Bryan if he resigned or was fired. He said he was given the option of resigning or being fired. Bryan said he would be taking some time off for a while and was glad he was no longer employed at 73 Magazine.

A new Associate Publisher, **Jim Morrisette/K6MR**, arrived unexpectedly at 73 Magazine during the late summer. Essentially he assumed the same title that Stu Norwood had. Stu had been terminated nearly a year ago when Wayne said he wanted to get back into the day-to-day operation at 73.

The Associate Publisher's position was abolished so it was a surprise to the entire staff of 73 magazine when it was re-established. Stu told us that the management attitude at 73 is that "...if it is not

broken, fix it." (sic) Changes are made for the sake of change rather than they are needed. He said he thought Bryan did an excellent job.

The major effort, understandably, at Wayne Green Enterprises is with *Compact Disc Review*, formerly named *Digital Audio* magazine. WGE consists of 73 *Magazine* and *CD Review* which reviews the compact disc hardware and software marketplace. It has been around more than five years and has done very well. Other ancillary areas associated with compact discs are being looked into, however. One project involves the distribution of independent label CD's.

Stu said he agreed with Bryan's assessment. "WGE is a revolving door of employees ...and morale is not good. Essentially, there is a rampant lack of trust among staffers. What I hear is that no one knows whether he or she will be next. Most of their managers have all departed." Stu said he also would welcome inquiries to: (603) 881-8945.

Wayne Green Enterprises is an independent subsidiary of IDG, International Data Group, Framingham, Mass. FCC records show Wayne Green/W2NSD as being born in 1922 so he is going on 68.

TEN-TEC TO RELEASE LONG-AWAITED ARGONAUT II

The QRP community will likely find a dream come true at Dayton 1990, when Ten-Tec unveils the latest in its series of small, low-power transceivers. The five-watt Argonaut II will bring QRP into the computer age, with microprocessor-controlled frequency synthesis, dual VFOs, at least 25 memories, FM option and a 100 kHz - 30 MHz general coverage "...world class" receiver. The \$900 [target] list HF 160-10 meter unit uses a liquid-crystal display for low energy consumption, and measures approximately 9.5"w x 3.25"h x 10"d.

"We don't want to show a prototype at Dayton," according to **Sid Kitrell/WOLYM**, VP of Marketing. "We want to have full production units available for sale." Kitrell said that Ten-Tec made an effort to contact all the "top QRP gurus" for input on design of the product.

Ten-Tec manufactures tool and die products and electronic equipment enclosures as well as ham gear. "We remained in the ham business because our founders were stubborn," according to Kitrell.

He told us that since the escalation of the yen, Ten-Tec has invested a "big pile" of research and development dollars in ham radio: "The profit opportunity has returned. The ham business will be a good business once again." He added that more new product announcements from his company are in the works for 1990.

DOJ FLIP-FLOPS ON 220 MHz APPEAL

The internal government campaign to reverse the FCC's reallocation of 220-222 MHz to land mobile radio stopped Dec. 11 when the Department of Justice moved to dismiss its own petition for review of the reallocation. The DOJ originally acted on behalf of the National Communications System (NCS), asking for remand of the decision back to the FCC on the basis that the reallocation was arbitrary, capricious and an abuse of discretion.

The NCS is the government's emergency communications network, comprised of numerous federal agencies. NCS believes that national security and emergency preparedness concerns favor retention of amateur access to 220-222 MHz.

A Justice Department spokeswoman would not explain why DOJ moved to dismiss the case. However, when the FCC proposed rules for the band on Dec. 15, it revealed that the DOJ and FBI will get some of the precious 220 spectrum for such uses as a drug enforcement network. This could explain why Justice was not eager to help the NCS return the band to radio amateurs. The ARRL's court appeal of the reallocation is still pending.

OREGON AMATEUR PETITIONS FCC FOR NEW RADIO SERVICE -- AND WINS!

The FCC's Christmas gift to **Kenneth Seymour/KA7OSM** could turn out to benefit not only Seymour ...but thousands or even millions of others. Last January, the Beaverton, Oregon ham -- a RF and IC design engineer -- petitioned the FCC for an emergency radio service for the outdoors. It would be placed in the radio control frequencies at 70 MHz. The petition was granted RM-6681.

Even though it received few comments on it -- a radio control aircraft group argued to keep the service out of the R/C bands -- the FCC decided the idea was meritorious. On December 12, the Commission granted the petition, starting a rulemaking to create

the **Personal Emergency Locator Transmitter Service (PELTS)**, a new *Subpart F of §Part 95*.

Judging from the reactions to PELTS at the public meeting, Commissioners and staff are enthusiastic about the service's capabilities and size of the market. The FCC proposed to place PELTS not at 70 MHz but at 220-222 MHz, returning to the general public some of the spectrum reallocated from amateur usage in Docket 87-14! The system will be confined to channels that are only 5 kHz wide, as are all other systems at 220-222.

It usually takes years and large expenses to get the FCC to create a new radio service. Most such proposals are rejected in the end. KA7OSM apparently didn't expect the FCC to jump on his bandwagon a mere 12 months after filing the small petition. He told us that he and partners are interested in manufacturing the units. No one at the FCC notified him that his petition was granted! He learned about it through a broadcasting industry contact ...and through our telephone call.

The PELTS radio will be a short-distance, 3 W portable with voice and homing capability, for use by backpackers, skiers, mountain climbers and others who need the security of radio communications while in wilderness areas. Base stations -- to be licensed to rescue teams, ski lift operators and state and local governments -- will be permitted up to 100 W. No fee would be charged base station operators for a license. No repeaters will be allowed.

The FCC proposes to license base stations only, and all portable units would operate under the base station license. This is likely to be a controversial proposal, as it would require users to "rent service from base station licensees," according to the FCC -- making the PELTS unavailable in areas where no base station exists, even though no base station is necessary for the units to talk to each other.

The FCC cited several cases of skiers and climbers who died in adverse weather conditions, when rescuers could not locate them. "Such fatal accidents have increased the awareness among individuals participating in outdoor activities in remote areas of their inability to summon assistance if and when it is needed," the FCC said.

This heightened safety awareness has actually created a serious problem, the FCC pointed out. Large numbers of individuals are obtaining 121 and

243 MHz Emergency Locator Transmitters (ELTs) and Emergency Position Indicating Radio Beacons (EPIRBs), intended for ships and aircraft ...and using them illegally as personal emergency devices. Such operation abuses and overloads the vast system of satellites and military installations who monitor these frequencies for vessels in distress. The cost of tracking down false alarms for ELTs alone is estimated at \$2 million per year. The U.S. was officially requested by an international search and rescue council to deal with the problem "...and remain ahead of the public's demand for personal locating beacons."

PELTS would be a legal answer to this burgeoning need, and several Scandinavian and European nations are apparently creating such services too.

Here is the proposed channel breakdown:

Ch.	Freq/MHz.	Use
1	220.9775	Assistance/Emergency (Base)
2	220.9825	" "
3	220.9875	Info Channel (Base)
4	220.9925	Short-distance (Mobile)
5	220.9975	" "
6	221.9775	Assistance/Emergency (Mobile)
7	221.9825	" "
8	221.9875	Short-distance (Mobile)
9	221.9925	" "
10	221.9975	Emergency/Notification/Homing

Rigid standards would be established for FCC approval of units. Standards include: Radios must have no sharp edges; must have operating instructions understandable by untrained personnel, permanently fixed on the radio; must be waterproof and floatable with the upper 4 inches floating out of the water.

"We emphasize that PELTS is intended only to provide the communications capability needed," the FCC said. "It is up to the governmental and private entities to provide the other half of the equation, watch and response systems, necessary to make this work."

We hope that readers concerned about outdoor safety will comment on the NPRM. We expect opposition from commercial land mobile interests who will want to secure all of 220-222 MHz for traditional dispatch operations. Comments on PR Docket 89-599 are due March 20, 1990 and replies April 19, 1990.